

REMARKS

This Response is to the Office Action dated April 6, 2005. Claims 1 to 48 are pending in the present application and all stand rejected. Claim 1 has been amended herein. No new matter has been introduced by any of the amendments. A check in the amount of \$120.00 is enclosed to cover the cost of a one month petition for extension of time. Please charge Deposit Account No. 02-1818 for any additional fees owed.

In the Office Action Fig. 1 was objected to based on the assertion that that which is old is only illustrated in this figure and should be designated with a legend such as "prior art." Enclosed with this amendment is a replacement sheet containing Figs. 1, 8 and 9, in which Fig. 1 has been amended to include the designation "prior art." No new matter has been introduced via this amendment, and Applicant submits that this objection has been addressed and obviated.

Claims 1, 2, 10, 11, 29, 30, 36, 39 and 40 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,313,184 to Greuter et al. ("*Greuter*"). Claims 3, 20, 26 to 28, 31 and 45 were rejected under 35 U.S.C. §103(a) as being obvious in view of *Greuter* and U.S. Patent No. 6,023,403 to McGuire et al. ("*McGuire*"). Claims 13 to 15 and 42 to 44 were rejected under 35 U.S.C. §103(a) as being obvious in view of *Greuter* and U.S. Patent No. 6,353,236 to Yatsuo et al. ("*Yatsuo*"). Claims 4 to 7, 12, 16, 21 to 23, 32 to 35 and 41 were rejected under 35 U.S.C. §103(a) as being obvious in view of *Greuter*, *McGuire* and *Yatsuo*.

Claim 1 as presently presented features: (i) an overcurrent protection portion having a current limiting element and a surface; (ii) an overvoltage protection portion disposed on the surface via an attachment structure physically separating the overcurrent protection portion and the overvoltage protection portion, the overvoltage protection portion thermally coupled to the overcurrent protection portion; and (iii) a plurality of terminations configured to connect the overcurrent protection portion and the overvoltage protection portion to a printed circuit board. Here, the overcurrent protection portion and the overvoltage protection portion are separated physically.

In contrast, the device of *Greuter* has a varistor 4 and a PTC resistor 5 having a common bearing surface over their entire sheetlike extent. *Greuter* specifically teaches that these elements 4 and 5 are brought into electrical contact with each other (see col. 3, lines 1 to 3).

Amendments to the Drawings:

The attached sheet of drawings includes changes to Fig. 1. This sheet replaces the original sheet including Figs. 1, 8 and 9.

Attachment: Replacement Sheet

Greuter does not teach or suggest that the elements 4 and 5 are separated by an attachment structure, instead, *Greuter* specifies intimate contact between elements 4 and 5 (col. 3, line 3).

At col. 3, line 27, *Greuter* teaches that the PCT material can be ceramic. Here, varistor sheet 4 and ceramic PTC sheet 5 are bonded to each other via an adhesive. Again, intimate contact is formed between the two sheets (col. 3, line 31).

The embodiments of *Greuter*, both calling for intimate contact between the overvoltage and overcurrent devices, teach away from claim 1. Accordingly, not only is *Greuter* deficient structurally under an anticipation rejection, *Greuter* appears to provide no motivation under §103 to be combined with one or more additional references to render claim 1 obvious. Applicant accordingly submits respectfully that claim 1 claims 2 to 19 that depend from claim 1 are patentably distinct over *Greuter*.

Regarding the rejection of Claim 29 over *Greuter*, Applicant respectfully traverses this rejection. *Greuter* teaches an overcurrent protection portion 5, an overvoltage protection portion 4 and terminals 1 and 2 (col. 2 line 67). Claim 29 on the other hand is directed to a circuit protection device including among other items: (i) an overcurrent protection portion interposed between one or more substrate layers of a circuit board; (ii) an overvoltage protection portion attached to the circuit board and thermally coupled to the overcurrent protection portion via a heat transferring structure within a least one of the substrate layers; and (iii) at least one terminal configured to connect the circuit protection device to a printed circuit board.

Nowhere does *Greuter* teach an overcurrent protection portion interposed between one or more substrate layers of a circuit board. Nowhere does *Greuter* teach an overvoltage protection portion attached to the circuit board. And nowhere does *Greuter* teach an overvoltage protection portion thermally coupled to the overcurrent protection portion via a heat transferring structure within a least one of the substrate layers. Regarding claim 29, *Greuter* is structurally deficient for at least three reasons. Applicant accordingly submits respectfully that *Greuter* does not anticipate Claim 29.

Moreover, there is no hint at a motivation to combine *Greuter* with those elements if they could be found in another reference. For one reason discussed above, *Greuter* calls for intimate contact between the overvoltage and overcurrent devices. Also, *Greuter* provides no hint or suggestion as to why or how its device could be modified to include the missing elements of

Claim 29. Applicant accordingly submits respectfully that claim 29 claims 30 to 48 that depend from claim 29 are patentably distinct over *Greuter*.

Regarding the rejection of Claim 20 over *Greuter* and *McGuire*, Applicant respectfully traverses this rejection. The Office Action states that *Greuter* discloses a voltage suppressor 4 disposed on “the surface” and thermally coupled to the over-current protection element (page 3, second paragraph in the Office Action). “The surface” as called for in Claim 20 is the “top surface of the second substrate,” not the surface of the PCT element as disclosed in *Greuter*. *Greuter* does not disclose an overvoltage protection portion disposed on a substrate, wherein the substrate is a structure provided in addition to a PCT element. *Greuter* instead discloses intimate contact between the overvoltage protection portion and the overcurrent protection portion as has been described and supported above.

McGuire does not cure the deficiencies of *Greuter*. *McGuire* merely teaches a surface mountable electrical device that includes a PTC element 20 placed between first and second substrates 120 and 130 as illustrated in Fig. 3. *McGuire*, however, is devoid of any teaching or suggestion to include a voltage suppressor. Similarly, *Yatsuo* provides no teaching or suggestion to include the disclosed varistor with an overcurrent protection device. There is no motivation to combine the references because no teaching or suggestion is given in the cited prior art to combine a PTC device and a voltage suppressor. The Office Action has not pointed to, for example, any teaching suggesting that a combined PTC device and voltage suppressor would be preferable over providing both components separately. Accordingly, Applicant respectfully submits that the present Office Action has not established a *prima facie* case of obviousness and that claim 20 and claims 21 to 28 depending from claim 20 are patentable at this time.

Applicant respectfully submits that the patentability of independent claims 1, 20 and 29 renders moot the obviousness rejections of claims 3, 26 to 28, 31 and 45 under *Greuter* and *McGuire*, claims 13 to 15 and 42 to 44 under *Greuter* and *Yatsuo* and claims 4 to 7, 12, 16, 21 to 23, 32 to 35 and 41 under *Greuter*, *McGuire* and *Yatsuo*.

In light of the foregoing comments, the Applicant respectfully submits that the present application is in condition for allowance and requests that a timely notice of allowance be issued in this case.

Appl. No. 10/672,088
Reply to Office Action of April 6, 2005

Respectfully submitted,

BY



Robert Connors

Reg. No. 46,639

Customer No. 29176

Dated: August 8, 2005